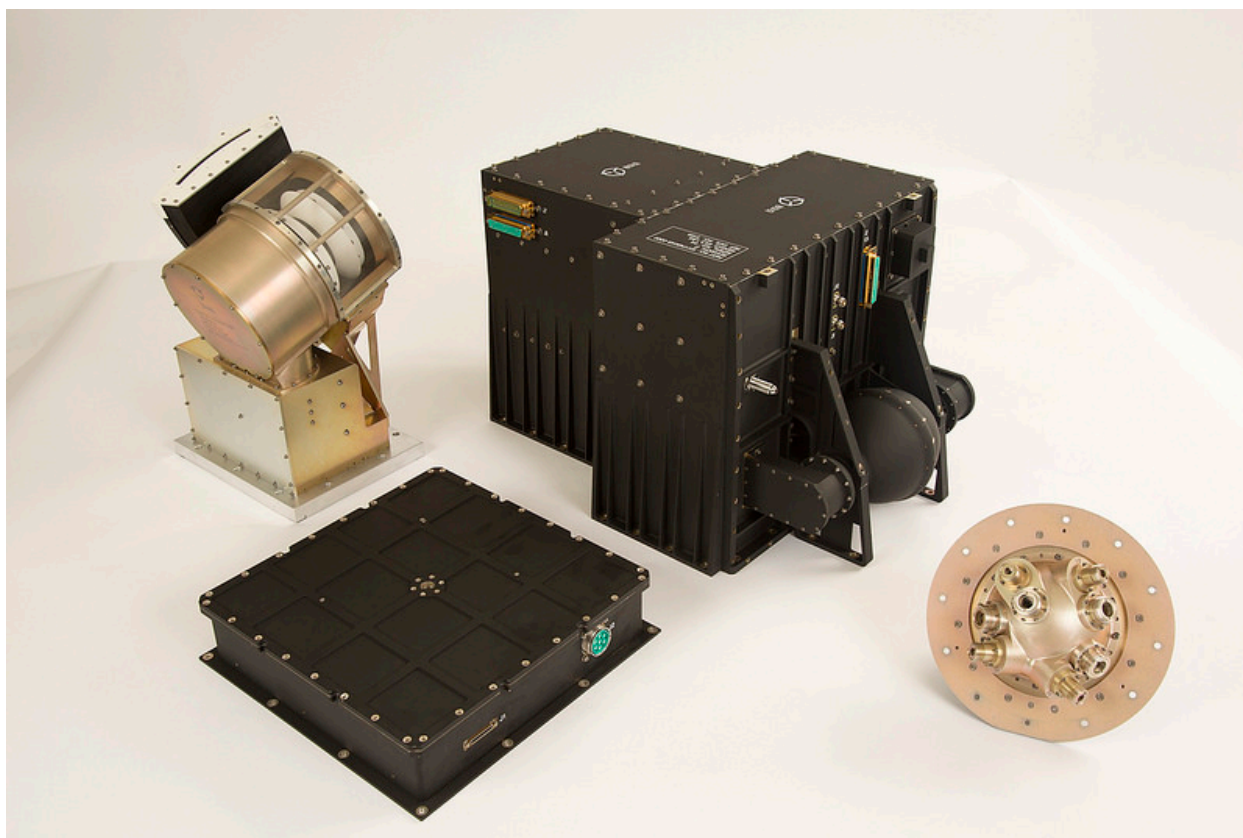


Nuclear detonation detection payload successfully launched

October 28, 2016



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More than 50 years ago, Los Alamos National Laboratory and the forerunner to the Department of Energy supported the very first satellites to detect nuclear explosions in the atmosphere or space. This early capability was an essential element in the very first treaty regulating nuclear weapons tests. Continuing that tradition, the second Space and Atmospheric Burst Reporting System (SABRS-2) payload developed and built by Los Alamos was successfully launched last fiscal year in support of the Laboratory's ongoing Global Security mission.

The SABRS payload is designed to replace the neutron, gamma-ray, and particle detectors fielded on Defense Support Program satellites in the 1970s through the 1990s. It augments the optical, radio frequency, x-ray, and particle sensors of the

Global Burst Detector (GBD) payload, which is currently fielded on U.S. Air Force GPS satellites.

The SABRS and GBD Payloads make up the sensing part of the United States Nuclear Detonation Detection System, which monitors the entire globe, from the surface of the earth, out to deep space, for nuclear detonations. “Today’s SABRS payloads continue to serve an indispensable role in nuclear weapons test monitoring,” said PADGS Terry Wallace. “The combination of SABRS payloads operating in geosynchronous orbit and the GBD payloads on GPS provides robust capability for the detection of nuclear explosions anywhere in the atmosphere or in space.”

The launch of the second SABRS payload is a great success story in government acquisition as funding challenges within the Air Force have threatened the program on a number of occasions. The successful launch can be attributed in part to White House Policy committees and with strong support from the State Department’s Undersecretary for Arms Control and International Security, Rose Gottemoeller.

This launch is a key step in ensuring the U.S. maintains persistent global capability for detecting above-ground nuclear detonations. The first SABRS payload launched in 2012 and the third is currently being built by Los Alamos. It is scheduled to launch in 2019 to complement the GBD payloads, which are deployed on GPS satellites every year.

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